



**CITY OF GOLDSBORO**  
**2012 Annual Drinking Water Quality Report**  
**PWSID # 04-96-010**

We're pleased to present to you this year's Annual Water Quality Report. During 2012, the City of Goldsboro was in compliance with all National Primary Drinking Water Regulations. EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water supply systems in order to ensure that tap water is safe to drink. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is a surface supply from the Neuse River. We also have an alternate water supply, the Little River, which was not used in 2012. This report shows our water quality and what it means. **If you have any questions about this report or concerning your water utility, please contact Karen Brashear, the Public Utilities Director, at 735-3329, ext. 101.** The Public Utilities Department is responsible for the operation of the City's drinking water plant. Public Utilities is a department within the City of Goldsboro local government. The Goldsboro City Council meets most months on the first and third Monday at 7:00 PM at City Hall.

As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, herbicides and pesticides, and radioactive substances. Drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply Section (PWS), Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information, and a relative susceptibility rating of Higher, Moderate, or Lower. The relative susceptibility rating of each source for the City of Goldsboro was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the watershed and its delineated assessment area). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Neuse River	Higher	February 2, 2010
Little River	Higher	February 2, 2010

The complete SWAP Assessment report for the City of Goldsboro may be viewed on the Web at: <http://www.ncwater.org/pws/swap>. Please note that because SWAP results and report are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center,

Raleigh, NC 27699-1634, or e-mail request to [swap@ncmail.net](mailto:swap@ncmail.net). Please indicate your system name, PWSID, and provide your name, mailing address, and phone number. If you have any questions about the SWAP report, please contact the Source Water Assessment staff by phone at 919-715-2633. It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the systems’ potential to become contaminated by PCSs in the assessment area.

The City of Goldsboro routinely monitors for over 150 contaminants in your drinking water according to Federal and State laws. The following tables show test results of the City’s drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in the following tables show the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2012.** The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

In the following tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we’ve provided the following definitions:

*Not Applicable (NA)* – Information not applicable/not required for that particular water system or for that particular rule.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - One part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Picocuries per liter (pCi/L)* – Picocuries per liter is a measure of the radioactivity in water.

*Nephelometric Turbidity Unit (NTU)* – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*Action Level* - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

*Treatment Technique (TT)* – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Residual Disinfection Level Goal* – The “Level” (MRDLG) of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

*Maximum Residual Disinfection Level* – The “Highest Level” (MRDL) of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

*Maximum Contaminant Level Goal* - The “Goal”(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

*Extra note:* MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

#### Microbiological Contaminants

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	0	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (presence or absence)	N	0	0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste

#### Turbidity

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	N	0.27maximum 100% under 0.3	N/A	TT = 1 NTU TT = percentage of sample <0.3 NTU	Soil Runoff

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be below 0.3 NTU.

#### Inorganic Contaminants

Contaminants (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low/High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	May 2012	N	0.74	NA	4	4	Erosion of natural deposits, water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

The City has also monitored for unregulated contaminants. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

#### Unregulated Inorganic Contaminants

Contaminant (units)	Sample Date	Your Water	Range Low/High	Secondary MCL
Sulfate (ppm)	May 2012	48.6	NA	250

#### Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90 <sup>th</sup> percentile)	Sept 2012	0.095	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90 <sup>th</sup> percentile)	Sept 2012	<3 ppb	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Goldsboro is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

#### Radioactive Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Beta/photon emitters (pCi/l)	Nov 2005	N	6.5	0	50	Decay of natural and man-made deposits

Note: The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

#### Treatment Techniques

Our water system used Step 1 as the method to comply with the disinfectants/disinfectant byproducts treatment technique requirements.\*

#### Disinfection By-products Precursors Contaminants

Contaminants (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low/High	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (ppm) (TOCs)-RAW	Monthly 2012	N	7.75	5.4 –12.60	N/A	TT	Naturally present in the environment
Total Organic Carbon (ppm) (TOCs)-TREATED	Monthly 2012	N	3.42	2.6 – 4.26	N/A	TT	Naturally present in the environment

**\*STEP 1 TOC Removal Requirements**

Source Water Alkalinity mg/L as CaCO<sub>3</sub> (in percentages)

Source Water TOC (mg/L)	0 – 60	>60 - 120	>120
>2.0 – 4.0	35.0	25.0	15.0
>4.0 – 8.0	45.0	35.0	25.0
> 8.0	50.0	40.0	30.0

**Disinfectants and Disinfection Byproducts Contaminants**

Contaminant (units)	MCL Violation Y/N	Your Water	Range Low/High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) (Total Trihalomethanes)	N	54.54	30.4-77.0	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) (Total Haloacetic Acids)	N	36.938	22.0-50.0	N/A	60	By-product of drinking water chlorination
Chloramines (ppm)	N	2.26	1.0-3.8	MRDLG=4	MRDL=4	Water additive used to control microbes
Chlorine (ppm)	N	1.82	0.7-3.2	MRDLG=4	MRDL=4	Water additive used to control microbes

Secondary contaminants, required by the NC Public Water Supply Section, are substances that affect the taste, odor, and/or color of drinking water. These aesthetic contaminants normally do not have any health effects and normally do not affect the safety of your water.

**Water Characteristics Contaminants**

Contaminant (units)	Sample Date	Your Water	Range Low/High	Secondary MCL
Manganese (ppm)	May 2012	0.022	N/A	0.05
Sodium (ppm)	May 2012	37.2	N/A	N/A
pH	May 2012	7.4	N/A	6.5 to 8.5

The City of Goldsboro uses chloramines disinfection in its drinking water. Two groups who need to be aware of this are kidney dialysis patients (and their dialysis coordinator) and tropical fish owners. Dialysis machines require water with no chlorine or chloramines. Goldsboro has informed all local dialysis centers and area hospitals of the disinfection method so that appropriate treatment was installed to remove chloramines. Tropical fish owners must remove chloramines from water before use with fish. Chloramines will not dissipate from water like chlorine will. Local pet stores are aware of the disinfection method and carry de-chloraminators that remove chlorine and ammonia.

We at the City of Goldsboro water system work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources. In March 2001, Goldsboro instituted a citywide Stormwater Management Program to improve water quality in the Neuse River Basin. Everyone can help in this effort to provide clean water for the citizens of North Carolina and Goldsboro if they will:

1. Dispose of chemicals, oils, unused fertilizers, old pesticides, and other liquids properly, and do not dump them into storm sewer inlets or ditches. Contact the City's Public Works Department at 919-580-4225 for assistance in disposal.
2. Properly dispose of fats, oils, and greases to prevent sanitary sewer overflows.
3. Fix leaking sanitary sewer pipes on their property, and notify the City's Public Works Department at 919-580-4225 whenever a leaking sanitary sewer is discovered.
4. Avoid straight piping of roof drains and floor drains to storm sewers and ditches. Roof drains should discharge directly onto grassed areas, and floor drains should be connected to the sanitary sewer. Contact the City's Public Works Department at 919-580-4225 for assistance in correcting any problems.
5. Limit the use of pesticides and fertilizers on yards, and avoid application just prior to rain events so that a storm does not wash the pesticides and fertilizers into the storm sewer system.
6. Clean up grass clippings and yard waste and dispose of them properly, or deposit them into a mulch pile for use in gardens and flower beds.

7. Report any non-stormwater discharge (oil, foam, chemicals, sanitary waste, etc.) that have entered inlets, storm sewers, or ditches to the City of Goldsboro's Illicit Discharge Hotline, 919-580-4369.

Please call Karen Brashear at **735-3329, ext. 101**, if you have any questions.